

#### **410 IAC 1-2.5-141 Tuberculosis; specific control measures**

Authority: IC 16-19-3-4; IC 16-41-2-1

Affected: IC 16-41-2; IC 16-41-9

Sec. 141. The specific control measures for tuberculosis disease (called tuberculosis or TB) (infectious agent: *Mycobacterium*

tuberculosis) are as follows:

(1) All suspect and confirmed cases of pulmonary, extrapulmonary, and miliary tuberculosis must be reported to the local health officer or the department. All suspect and confirmed cases of multiple drug-resistant tuberculosis require consultation with the department for appropriate and adequate treatment.

(2) An investigation by the local health officer shall be performed immediately and shall include case management. The local health officer shall request laboratory, radiological, and other studies as required for case ascertainment and to determine if the suspect case should be isolated as described in subdivision (3). For confirmed and suspected cases of pulmonary, laryngeal, or pleural tuberculosis, a contact investigation shall be performed, identifying both high and medium priority contacts. Prioritization of contacts is to be assigned in accordance with Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis. Recommendations from the National Tuberculosis Controllers Association and CDC.

MMWR; December 16, 2005; Vol. 54; No. RR-15. Priority is based on the likelihood of infection and the potential hazards to the individual contact infected as follows:

(A) Prioritization of contacts exposed to persons with acid-fast bacilli (AFB) sputum positive or cavitary tuberculosis cases is as follows:

(i) High-priority contacts include the following:

(AA) Household contacts.  
(BB) Children less than five (5) years of age.  
(CC) Persons with medical risk factors, including HIV.  
(DD) Persons exposed during medical procedures.  
(EE) Persons exposed in a congregate setting.  
(FF) Persons that exceed duration of environment limits as determined on a case-by-case basis by the department.

(ii) Medium-priority contacts include the following:

(AA) Children five (5) to fifteen (15) years of age.  
(BB) Persons that exceed duration of environment limits as determined on a case-by-case basis by the department.  
(B) Prioritization of contacts exposed to persons with AFB sputum negative pulmonary, pleural, or laryngeal tuberculosis cases with abnormal chest radiographs and cultures positive for *Mycobacterium tuberculosis* is as follows:

(i) High-priority contacts include the following:

(AA) Children less than five (5) years of age.  
(BB) Persons with medical risk factors, including HIV.  
(CC) Persons exposed during medical procedures.  
(ii) Medium-priority contacts include the following:

(AA) Household contacts.  
(BB) Persons exposed in a congregate setting.  
(CC) Persons that exceed duration of environment limits as determined on a case-by-case basis by the department.

(3) Pulmonary, laryngeal, and pleural tuberculosis cases and suspect cases who:

(A) have three (3) consecutive AFB smear negative sputa obtained at least eight (8) hours apart with one (1) being an early morning specimen or two (2) consecutive final negative sputa culture for *Mycobacterium tuberculosis*;

(B) are clinically improving;  
(C) are known to be medically evaluated;  
(D) have completed two (2) weeks of an adequate antituberculosis therapy per Centers for Disease Control and Prevention guidelines; and  
(E) are known to be adherent to their ongoing antituberculosis treatment regimen;  
are defined as noninfectious for public health measures. All other pulmonary, laryngeal, and pleural tuberculosis cases and  
suspect cases must be isolated until they meet the criteria to be noninfectious. All confirmed cases of multiple drug-resistant  
tuberculosis (resistant to isoniazid and rifampin) must be isolated until two (2) final negative sputa cultures for *Mycobacterium tuberculosis* are obtained. In health care facilities, tuberculosis cases and suspect cases must be isolated in  
accordance with the Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings,  
2005, as published by Centers for Disease Control and Prevention in Morbidity and Mortality Weekly Report, December 30,  
2005, Volume 54, No. RR-17. Prior to discharge of any case or suspect case of tuberculosis, the health care facility shall  
notify the local health department in the jurisdiction where the tuberculosis suspect or case resides. Prior to discharge of a  
tuberculosis case or suspect case, the local health department shall make plans, in writing, for continuation of medical  
follow-up, ensuring adherence to therapy and isolation unless the case or suspect case meets the criteria in this subdivision  
and is deemed to be noninfectious. Plans shall be developed in cooperation with the treating physician and the patient and  
must be in accordance with this rule. For patients with confirmed or suspected infectious pulmonary tuberculosis who do  
not need to be hospitalized, in-home isolation is an acceptable alternative. Contact with persons outside the home shall be  
prohibited unless the infectious person wears a surgical mask, properly tied. Children less than four (4) years of age and  
immunocompromised persons shall not be in the home while the case is considered infectious.  
(4) Concurrent disinfection is required and shall include hand washing and good housekeeping practices combined with  
dilution of particles in the air by ventilation.  
(5) Because of the potential for unrecognized exposure and known exposure of medical personnel to tuberculosis, health care  
facilities and laboratories shall develop and follow tuberculosis prevention and control programs for their facilities. At a  
minimum, facilities programs shall include an annual tuberculosis risk assessment, with risks identified as low, medium,  
or potential ongoing transmission, based on the criteria in the Guidelines for Preventing the Transmission of *Mycobacterium*  
*tuberculosis* in Health-Care Settings, 2005, as published by Centers for Disease Control and Prevention in Morbidity and  
Mortality Weekly Report, December 30, 2005, Volume 54, No. RR-17.  
(6) For every case of pulmonary, laryngeal, or pleural tuberculosis, the local health officer must initiate a contact investigation within one (1) business day of reporting for infectious cases (smear positive) and within three (3) business days  
of a smear negative *Mycobacterium tuberculosis* culture positive report. The first step in performing the contact investigation  
for pulmonary cases is to estimate the degree of infectiousness and determine the infectious period. Infectiousness is generally  
predicted by disease in a pulmonary or respiratory site, for example, endobronchial or laryngeal site, a lung cavity seen on

a chest x-ray, AFB seen in a smear of concentrated sputum, and protracted cough. Under most circumstances, tuberculosis without a pulmonary, laryngeal, or pleural site is not infectious. The infectious period is defined as the period three (3)

months prior to the start of medication, symptom onset (especially cough), or first positive finding consistent with tuberculosis (i.e., abnormal chest x-ray, positive AFB smear), whichever occurred first until any of the following endpoints

is attained:

(A) Contact is broken with the infectious case.

(B) Effective isolation measures are instituted for that case.

(C) The case is determined to be noninfectious by the criteria in subdivision (3).

The case shall be interviewed in detail to identify all contacts who shared air space during the infectious period.

Priorities

for contact investigation are determined on the basis of the characteristics of the index patient, susceptibility and vulnerability

of contacts, and circumstances of the exposures. High priority shall also be assigned to exposed children less than five (5)

years of age and any exposed persons who have medical conditions, for example, HIV infection, TNF therapy, cancer

treatment, and organ transplants, etc. making them vulnerable to tuberculosis.

(7) All high-priority and medium-priority contacts not known to have a previously positive Mantoux tuberculin skin test

(TST), positive interferon gamma release assay (IGRA), or active tuberculosis disease shall be tested with the IGRA or by

five (5) tuberculin units (TU) purified protein derivative (PPD) intradermally by the Mantoux method. The PPD shall be

administered and read by an individual trained with a department approved curriculum in the administration and reading

of tuberculin skin tests. The skin test should be read forty-eight (48) to seventy-two (72) hours later. Date and time given,

location of placement of test, date and time read, and the amount of induration in millimeters shall be recorded. If any of

the following conditions are met, then the contact investigation shall be progressively expanded to include contacts with

lesser degrees of exposure:

(A) The prevalence of positive TST (induration  $\geq$  5 mm) or positive IGRA is higher in contacts tested than the prevalence in similar populations residing in the jurisdiction.

(B) A new positive TST or positive IGRA is found in a child less than five (5) years of age.

(C) A documented skin test conversion is found among contacts.

(D) A secondary case of active tuberculosis disease is found among contacts.

When none of the criteria in this subdivision are met, further expansion of the contact investigation is not necessary.

(8) Contacts with positive TST or positive IGRA results, those with symptoms, those with immunosuppressive conditions,

or children younger than five (5) years of age should have a chest x-ray and medical evaluation performed to determine if

they have tuberculosis disease. Those with tuberculosis disease symptoms or abnormal chest x-rays consistent with active

tuberculosis disease should submit sputa for AFB smear, culture, and sensitivity.

(9) Contacts with suspected or confirmed active tuberculosis disease shall be evaluated and managed according to this section.

(10) All contacts identified through contact investigation who have a positive TST (induration  $\geq$  5 mm) or a positive IGRA,

a normal chest x-ray, and no symptoms of tuberculosis disease should be reported to the local health department and offered

latent tuberculosis infection treatment, regardless of age or risk, unless otherwise medically contraindicated.

Contacts should

also be considered for treatment of latent infection with tuberculosis in any of the following situations:

(A) Evaluation of other contacts with a similar degree of exposure demonstrates a high prevalence of infection.

(B) The contact is a child or immunosuppressed person.

(11) Infants who are exposed to a person with infectious active tuberculosis disease should be evaluated with a TST and a

chest radiograph. If the skin test result is negative and the chest radiograph is normal, the infant should be skin tested again

at three (3) to four (4) months of age and at six (6) months of age. The infant should receive preventive therapy (window

prophylaxis) even if the TST is negative, unless medically contraindicated. Preventive therapy (window prophylaxis) may

be discontinued if the infant is skin test negative at six (6) months of age, provided at least ten (10) weeks have passed since

the infant was last exposed to infectious tuberculosis.

(12) The local health officer shall ensure that:

(A) high and medium risk contacts are appropriately evaluated for tuberculosis infection;

(B) infants and children less than five (5) years of age are started in preventive therapy (window prophylaxis); and

(C) a complete course of treatment for latent tuberculosis infection is recommended for contacts with evidence of tuberculosis infection, regardless of age, unless medically contraindicated.

The local health officer is responsible for recording and reporting to the department the results of the contact investigation

per department guidelines.

(13) The local health department of the jurisdiction shall actively case manage every tuberculosis case and suspect where

the case or suspect resides until they have completed an adequate course of tuberculosis chemotherapy as described in

Treatment of Tuberculosis published by the Centers for Disease Control and Prevention (CDC) in Morbidity and Mortality

Weekly Report, June 20, 2003, Volume 52, No. RR-11 or until the patient is determined not to have tuberculosis disease or

infection. The duties of the local health department shall include the following:

(A) Requesting laboratory studies, such as AFB smear and cultures as needed for the following:

(i) Case ascertainment.

(ii) Determining whether isolation is necessary.

(iii) Genotyping of organisms.

(B) Requesting drug susceptibility testing of all initial *Mycobacterium tuberculosis* isolates.

(C) Ensuring appropriate antituberculosis medications are initiated at the appropriate dose in accordance with this subsection.

(D) Ensuring that the pulmonary tuberculosis patient is isolated until confirmed to be noninfectious according to the criteria in subdivision (3).

(E) Assessing that medication is taken as prescribed using directly observed therapy (DOT) or a department approved

alternative such as video DOT, for all doses except occasional dosages which may be self administered due to inclement weather, holidays, etc., unless a waiver is obtained from the department.

(F) Documenting and reporting conversion of sputa from AFB smear positive to negative and tuberculosis culture identification from *Mycobacterium tuberculosis* isolated to not isolated.

(G) Contact investigation.

(H) Completion and submission of the contact investigation report for *Mycobacterium tuberculosis* culture positive cases to the department.

(14) The Centers for Disease Control and Prevention and the Council of State and Territorial Epidemiologists set the standard clinical and laboratory case definition.

*(Indiana State Department of Health; 410 IAC 1-2.5-141; filed Nov 25, 2015, 2:54 p.m.: 20151223-IR-410150039FRA)*